

REMARKS/ARGUMENTS

Claims 1, 2, 4-7, 9-15, and 17-23 are currently pending. Applicants have amended claims 1, 7, 11, 15, and 20. No new matter has been added as a result of these amendments.

Claims 1-5, 7, 9-13, 15, 17-19, and 20-23 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Benyassine et al. (US Patent No. 6,721,712)(hereinafter "Benyassine") in view of Kramer et al. (U.S. Patent No. 6,658,027)(hereinafter "Kramer").

Claims 6, 14, 18, and 22 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Benyassine in view of Kramer and further in view of Mizusawa et al. (US Patent Publication No. 2002/0037002)(hereinafter "Mizusawa").

Reconsideration in view of the foregoing amendments and the following remarks is respectfully requested.

Rejections under 35 U.S.C. §103

Claims 1-5, 7, 9-13, 15, 17-19, and 20-23

Claims 1-5, 7, 9-13, 15, 17-19, and 20-23 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Benyassine in view of Kramer.

Solely in order to expedite prosecution, independent claims 1, 7, 11, 15, and 20 have been amended. Applicants submit that even if Benyassine and Kramer could be combined as suggested in the Office Action, the combination fails to disclose or suggest all of the features of claim 1. For example, claim 1 recites, in part, that "the audio data frames transmitted at the first frame rate have a first interval between the frames, wherein the audio data frames transmitted at the second frame rate have a second interval between the frame, and wherein the first interval and the second interval are constant" and that "a total amount of audio data received by the second client in the one or more repackaged frames is equal to a total amount of audio data transmitted by the first client in the audio data frames."

Neither Benyassine nor Kramer teach these features of claim 1. Furthermore, Benyassine teaches away from the amount of audio data being received at the receiver is equal to

the amount of audio data transmitted by the receiver. The systems described in Benyassine include a DTX-enabled transmitter and a non-DTX receiver or vice versa. The amount of data being transmitted and received in such a configured is not equal as recited in claim 1. The DTX-enabled devices communicate using discontinuous streams of data while the non-DTX devices communicate using continuous streams of data.

“Discontinuous transmission (‘DTX’) is [a] method for reducing the amount of data that has to be transmitted across a communication channel. DTX takes advantage of the fact that only about 50% of a typical two-way conversation comprises actual speech activity, while the remaining 50% is silence or non-speech. Accordingly, DTX suspends speech data transmission when it is detected that there is a pause in the conversation.”

Benyassine, col. 1, lines 44-51. In contrast, the non-DTX devices described in Benyassine, however, expect as continuous stream of data and are not able to fill in the “gaps” in the data created received from a non-DTX device:

[N]ot all current communications systems support DTX. For example, current Code Division Multiple Access (“CDMA”) systems require mobile units to be in continuous contact with a base station in order to receive and transmit various control signals. As such, discontinuous transmission is not supported since transmission cannot be powered-off even when, for example, pauses occur in a conversation carried by the mobile unit.

As a result, problems can arise when a device configured to operate as part of a DTX-enabled communication system (i.e. a DTX-enabled device) communicates with a device configured to operate as part of a communication system that does not support DTX (i.e. a non-DTX device). For example, a speech signal encoded by a DTX-enabled device and transmitted to a non-DTX device may comprise empty or non-transmittal frames representing pauses in a conversation. These empty or non-transmittal frames, and thus the signal as a whole, may not be properly processed by the non-DTX device since it does not support DTX and is therefore not able to “fill up” the dropped frames it receives. When an encoded speech signal is transmitted from a non-DTX device to a DTX-enabled device, on the other hand, the advantages afforded by discontinuous transmission are diminished because the non-DTX device encodes every frame of the signal. In other words, the non-DTX device is not configured to drop any frames and consequently, every frame has to be transmitted across the communication channel, whether it contains actual speech activity or not.

Benyassine, col. 2, lines 9-28.

Benyassine describes two possible configurations: (1) a DTX-enabled transmitter communicating with a non-DTX receiver, and (2) a non-DTX enabled transmitter communicating with a DTX-enabled receiver. See Benyassine, Figs. 1 and 2. Neither configuration teaches all of the features recited in claim 1, and Kramer fails to remedy these deficiencies of claim 1. For example, in the first configuration, where a non-DTX transmitter is communicating with a DTX-enabled receiver, the total amount of audio data received by the DTX-enabled receiver is not equal to a total amount of audio data transmitted by non-DTX transmitter. The non-DTX transmitter transmits a continuous stream of data to the DTX-enabled receiver. But, the DTX-enabled receiver does not expect or require a continuous stream of data, and the rate conversion module 130 converts the continuous stream of data from the non-DTX transmitter into a discontinuous stream of data for the DTX-enabled receiver by dropping data for periods where no speech is being transmitted. See Benyassine, col. 6, lines 27-32, and 44-47, and col. 7, lines 13-19. Therefore, the first configuration described by Benyassine fails to teach that “total amount of audio data received by the second client in the one or more repackaged frames is equal to a total amount of audio data transmitted by the first client in the audio data frames” as recited in claim 1.

The second configuration described in Benyassine, where a DTX-enabled transmitter is communicating with a non-DTX receiver, similarly fails to teach these features of claim 1. The total amount of audio data received by the receiver is not equal to a total amount of audio data transmitted by DTX-enabled transmitter. The DTX-enabled transmitter does not transmits frames of data where there is pauses or breaks in the speech activity. But, the non-DTX receiver requires a continuous stream of data. Thus, the rate conversion module 130 converts the discontinuous stream of data from the DTX-enabled transmitter into a continuous stream of data for the non-DTX receiver. See Benyassine, col. 4, lines 57-61. Therefore, the second configuration described by Benyassine also fails to teach that “total amount of audio data received by the second client in the one or more repackaged frames is equal to a total amount of audio data transmitted by the first client in the audio data frames” as recited in claim 1.

For at least the reasons provided, the combination of Benyassine and Kramer fails to disclose or suggest all of the features of claim 1. Independent claims 7, 11, 15, and 20 should also be allowable for similar reasons as claim 1. Dependent claims 2-5, which depend from claim 1, claims 9 and 10, which depend from claim 7, claims 12 and 13, which depend from claim 11, claims 17-19, which depend from claim 15, and claims 21-23, which depend from claim 20, should also be in condition for allowance at least due to their dependence from independent claims 1, 7, 11, 15, and 20, respectively.

Accordingly, withdrawal of the rejection of claims 1-5, 7, 9-13, 15, 17-19, and 20-23 under 35 U.S.C. §103(a) is respectfully requested.

Claims 6, 14, 18, and 22

Claims 6, 14, 18, and 22 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Benyassine in view of Kramer and further in view of Mizusawa.

Claim 6 depends from claim 1, claim 14 depends from claim 11, claim 18 depends from claim 15, and claim 22 depends from claim 20, and the rejection of claims 6, 14, 18, and 22 is premised on the assertion that the combination of Benyassine and Kramer discloses or suggests the features recited in claims 1, 11, 15 and 20 and Mizusawa discloses or suggests the remaining features of claims 6, 14, 18, and 22. As discussed above, however, the combination of Benyassine and Kramer does not disclose or suggest all of the features recited in claims 1, 11, 15 and 20. As best understood, Mizusawa provides no teaching or suggestion that would remedy this deficiency.

Accordingly, withdrawal of the rejection of claims 6, 14, 18, and 22 under 35 U.S.C. §103 is respectfully requested.

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PATENT

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance and an action to that end is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 858-350-6100.

Respectfully submitted,



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